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The status of *Julus punctatus* Say, 1821 (Chordeumatida: Cleidogonidae)

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ABSTRACT

A careful reading of the original description of *Julus punctatus* Say, 1821, shows conclusively that it is based on a species referable to the chordeumatid genus *Cleidogona*. Association with a particular species is possible only by designation of a neotype, with the vicinity of Philadelphia being considered an arbitrary but plausible type locality.

The early American naturalist Thomas Say, often referred to as "The Father of American Entomology" was a generalist who described great numbers of mollusks as well as hundreds of insects, and provided names for many other kinds of animals: mammals, reptiles, crustaceans, arachnids, and even a few myriapods. Say had an uncanny ability to encapsulate the really important diagnostic features of his novelties in a few words, and even many of the smallest beetles can be recognized from what he wrote about them almost two centuries ago. Say was less successful in depicting the nine diplopods and eight chilopods named in his sole excursion (1821) into myriapodology. Among the former, three names of the nine were preoccupied by their earlier usage by European writers, and two others were too briefly treated to allow confident allocation to a modern genus except by some arbitrary fiat. *Julus punctatus* falls into the category of Say's less felicitous names, and has haunted the American literature for decades as an alien element in what I am convinced is the incorrect order. The desire to restore the name to its rightful identity during preparation of the "Checklist of Millipeds of North and Middle America" (in press) led to a comparison of the original description with specimens of several

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possible candidate taxa, from which I became convinced that the name was based on an individual of the genus *Cleidogona* instead of a small julid, as all previous authors have assumed. Justification for this position is offered in the following paragraphs.

Cleidogona sayana (Bollman), new combination

Julus punctatus Say, 1821, Journ. Acad. Nat. Sci. Philadelphia, 2: 102. Type specimen(s) (not known to exist) from an unspecified locality. Preoccupied by *Julus punctatus* Leach, 1815.

Julus stigmatosus Brandt, 1840, Bull. sci. Acad. Imp. Sci. St.-Pétersbourg, 8: 103. Replacement name for *Julus punctatus* Say, but itself preoccupied by *Julus stigmatosus* Eichwald, 1830.

Nemasoma sayanum Bollman, 1893, Bull. U. S. Nat. Mus., 46: 145. Replacement name for *Julus punctatus* Say (and *Julus stigmatosus* Brandt). – Chamberlin & Hoffman, 1958, Bull. U. S. Nat. Mus. 212: 124.

Not *Nemasoma stigmatosum* sensu Bollman, 1888, Proc. U. S. Nat. Mus., 11: 405, which was doubtless a blaniulid of some sort although his material has not been re-examined.

Not *Nemasoma sayanum* sensu Loomis, 1943, Bull. Mus. Comp. Zool. 92: 397, which was very probably *Orinisobates nigrius* (Chamberlin).

Say's original description is as follows:

"Body brownish, with an impressed dorsal line, impressed white dots and spots; ultmate segments unarmed.

"Body cylindrical, emarginate, above dark brown, glabrous, an obsolete, dorsal, whitish, slightly impressed, acute line; segments each with a white dot on either side above, and a larger transversely oblong lateral one, which is gradually more completely bisected on the posterior segments into two distinct dots, which on the terminal segments resemble the dorsal ones; ultimate one abruptly narrower than the preceeding and truncated; anterior segments attenuated to the head, which is wider than the anterior one; anterior segment as long as the second and third ones conjointly; spiracles somewhat prominent; eyes very distinctly granulated, subtriangular, black; head dark brown; labrum white."

Read with a specimen of *Cleidogona* at hand, the foregoing can be appreciated for its accurate portrayal of this genus. The middorsal "impressed line", the shape and texture of the eyes, size of head relative to the collum, all are trademarks of the Chordeumatida generally. But it is the description of color pattern, specifically the

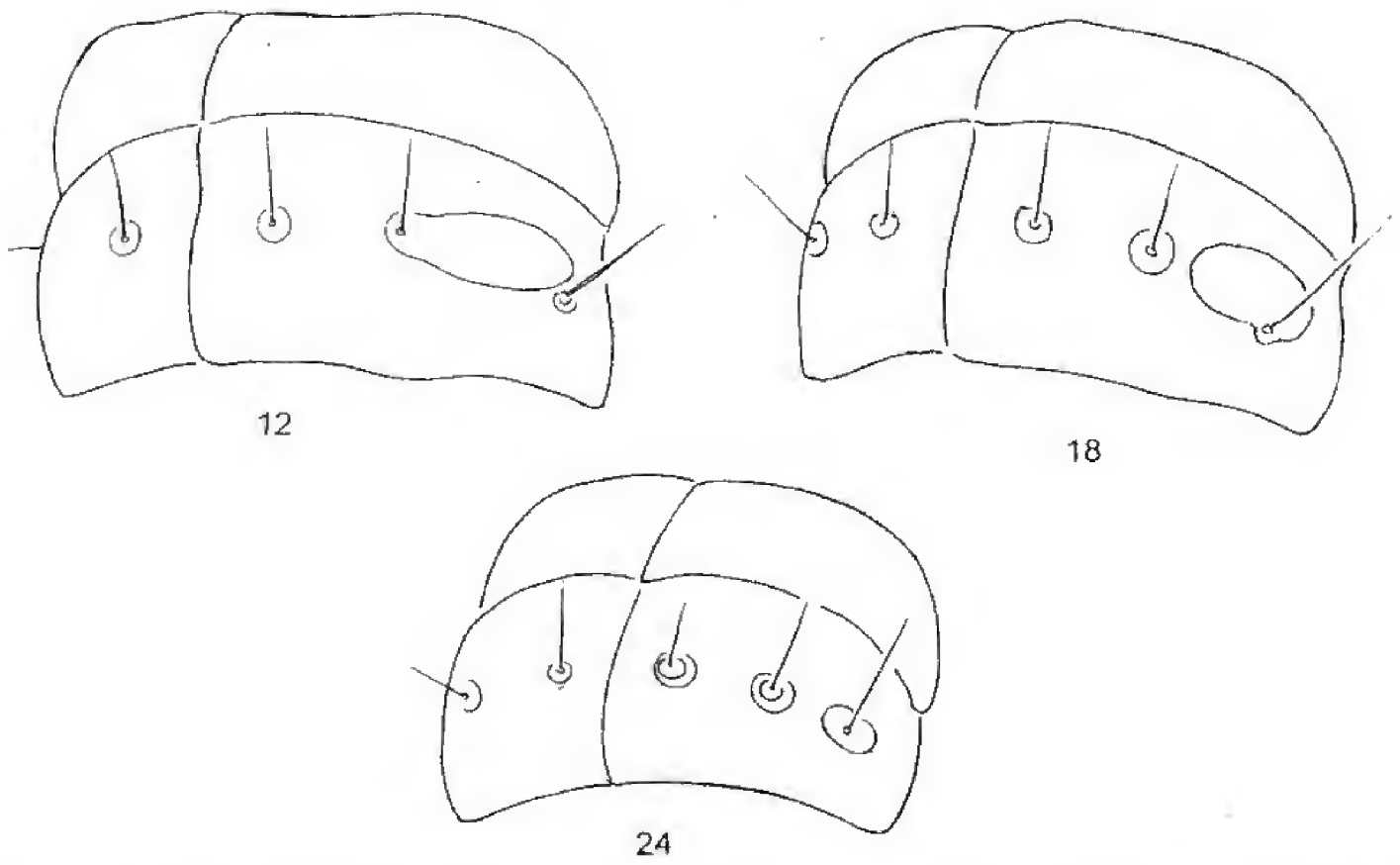

Fig. 1. *Cleidogona major* Cook & Collins, dorsolateral aspect of several body segments showing progressive division of the originally single white spot, resulting in a circular spot surrounding each metazonal seta.

gradual bisection of the dorsolateral white spot in going posteriad on the body, that applies to this one genus in eastern United States. There are of course many species of *Cleidogona*, so that a closer restriction of the name can only be attempted by designation of a type locality. Prior to 1821, Say had not traveled west of the Appalachians, although he did collect millipeds in the coastal area of Georgia and north Florida. In his 1821 paper, these were (?consistently) specified by the expression "Southern States." In the absence of such designation, it seems reasonable to assume that the specimens described were probably found in or around Philadelphia (Say's residence for many years), and I here propose to designate that region as the type locality of *Julus punctatus*. So far, the only cleidogonid known from eastern Pennsylvania (Shear, 1972) is *C. caesioannulata* (Wood), but it is possible that *C. major* Cook & Collins, described from Washington, D.C., might also be found there (I have seen a single male specimen of this or a closely related species from Connecticut).

Eventually, local collecting efforts around Philadelphia will disclose which, and how many, cleidogonids are native there, and a neotype can be chosen to stabilize Say's species.

In retrospect, it seems curious that in describing *Spirostrephon caesioannulatus*, Wood (1865: 194) did not associate the elements common to his description and Say's, which he reprinted verbatim on page 206 of his monograph. And equally

curious that Wood, Bollman, and all subsequent workers apparently were more influenced by Say's description in "Julus" than by the numerous characters which effectively exclude *punctatus* from the order Julida.

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